

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/762,769A  
Source: 1Fw16  
Date Processed by STIC: 7/12/06

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 07/12/2006

PATENT APPLICATION: US/10/762,769A

TIME: 09:52:58

Input Set : F:\SEQLIST.TXT

Output Set: N:\CRF4\07122006\J762769A.raw

4 <110> APPLICANT: Melis, Anastasios  
 5 Wintz, Hsu-Ching Chen  
 7 <120> TITLE OF INVENTION: MODULATION OF SULFATE PERMEASE FOR  
 8 PHOTOSYNTHETIC HYDROGEN PRODUCTION  
 11 <130> FILE REFERENCE: BERK-016CIP  
 13 <140> CURRENT APPLICATION NUMBER: 10/762,769A  
 14 <141> CURRENT FILING DATE: 2004-01-21  
 16 <150> PRIOR APPLICATION NUMBER: 60/354,760  
 17 <151> PRIOR FILING DATE: 2002-02-04  
 19 <150> PRIOR APPLICATION NUMBER: 60/377,902  
 20 <151> PRIOR FILING DATE: 2002-05-02  
 22 <150> PRIOR APPLICATION NUMBER: 10/350,298  
 23 <151> PRIOR FILING DATE: 2003-01-22  
 25 <160> NUMBER OF SEQ ID NOS: 16  
 27 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 29 <210> SEQ ID NO: 1  
 30 <211> LENGTH: 411  
 31 <212> TYPE: PRT  
 32 <213> ORGANISM: Chlamydomonas reinhardtii  
 34 <400> SEQUENCE: 1  
 35 Met Glu Arg Val Cys Ser His Gln Leu Ala Ser Ser Arg Gly Arg Pro  
 36 1 5 10 15  
 37 Cys Ile Ala Gly Val Gln Arg Ser Pro Ile Arg Leu Gly Thr Ser Ser  
 38 20 25 30  
 39 Val Ala His Val Gln Val Ser Pro Ala Gly Leu Gly Arg Tyr Gln Arg  
 40 35 40 45  
 41 Gln Arg Leu Gln Val Val Ala Ser Ala Ala Ala Ala Ala Phe Asp  
 42 50 55 60  
 43 Pro Pro Gly Gly Val Ser Ala Gly Phe Ser Gln Pro Gln Gln Gln Leu  
 44 65 70 75 80  
 45 Pro Gln Gln His Pro Arg Gln Pro Gln Ala Val Ala Glu Val Ala Val  
 46 85 90 95  
 47 Ala Glu Ser Val Ser Ala Pro Ala Ser Ala Ala Pro Ser Asn Asp Gly  
 48 100 105 110  
 49 Ser Pro Thr Ala Ser Met Asp Gly Gly Pro Ser Ser Gly Leu Ser Ala  
 50 115 120 125  
 51 Val Pro Ala Ala Ala Thr Ala Thr Asp Leu Phe Ser Ala Ala Ala Arg  
 52 130 135 140  
 53 Leu Arg Leu Pro Asn Leu Ser Pro Ile Ile Thr Trp Thr Phe Met Leu  
 54 145 150 155 160  
 55 Ser Tyr Met Ala Phe Met Leu Ile Met Pro Ile Thr Ala Leu Leu Gln  
 56 165 170 175  
 57 Lys Ala Ser Leu Val Pro Leu Asn Val Phe Ile Ala Arg Ala Thr Glu

P.6

## RAW SEQUENCE LISTING

DATE: 07/12/2006

PATENT APPLICATION: US/10/762,769A

TIME: 09:52:58

Input Set : F:\SEQLIST.TXT

Output Set: N:\CRF4\07122006\J762769A.raw

```

58          180          185          190
59 Pro Val Ala Met His Ala Tyr Tyr Val Thr Phe Ser Cys Ser Leu Ile
60          195          200          205
61 Ala Ala Ala Ile Asn Cys Val Phe Gly Phe Val Leu Ala Trp Val Leu
62          210          215          220
63 Val Arg Tyr Asn Phe Ala Gly Lys Lys Ile Leu Asp Ala Ala Val Asp
64 225          230          235          240
65 Leu Pro Phe Ala Leu Pro Thr Ser Val Ala Gly Leu Thr Leu Ala Thr
66          245          250          255
67 Val Tyr Gly Asp Glu Phe Phe Ile Gly Gln Phe Leu Gln Ala Gln Gly
68          260          265          270
69 Val Gln Val Val Phe Thr Arg Leu Gly Val Val Ile Ala Met Ile Phe
70          275          280          285
71 Val Ser Phe Pro Phe Val Val Arg Thr Met Gln Pro Val Met Gln Glu
72          290          295          300
73 Ile Gln Lys Glu Met Glu Glu Ala Ala Trp Ser Leu Gly Ala Ser Gln
74 305          310          315          320
75 Trp Arg Thr Phe Thr Asp Val Val Leu Pro Pro Leu Leu Pro Ala Leu
76          325          330          335
77 Leu Thr Gly Thr Ala Leu Ala Phe Ser Arg Ala Leu Gly Glu Phe Gly
78          340          345          350
79 Ser Ile Val Ile Val Ser Ser Asn Phe Ala Phe Lys Asp Leu Ile Ala
80          355          360          365
81 Pro Val Leu Ile Phe Gln Cys Leu Glu Gln Tyr Asp Tyr Val Gly Ala
82          370          375          380
83 Thr Val Ile Gly Thr Val Leu Leu Leu Ile Ser Leu Val Met Met Leu
84 385          390          395          400
85 Ala Val Asn Gln Leu Gln Lys Leu Ala Arg Lys
86          405          410

```

89 &lt;210&gt; SEQ ID NO: 2

90 &lt;211&gt; LENGTH: 3873

91 &lt;212&gt; TYPE: DNA

92 &lt;213&gt; ORGANISM: Chlamydomonas reinhardtii

94 &lt;400&gt; SEQUENCE: 2

```

95 gcttagtacc taagcaaaaa taccaaagcc ttatcctgag ttgtcaacaa gaactccagc 60
96 ctgcgacgat gcaaagcctt tcttgagcgg gttgatggac ttgctttgt tatctgtcca 120
97 gtaagccacc agacactacc aagtagagta atccatttgt ataggtagc aatatggagc 180
98 gagtttgacg ccacacagctt gcctcgctcg gagggaggcc atgcatcgct ggggtgcagc 240
99 ggtcgcccat ccgactaggg acttcaagcg ttgctcatgt gcaggtctct ccggcaggta 300
100 agcaccgcgc tcggcggcgt gtacacatgg ggccgtcagg ccaactgcgt ttgttggtta 360
101 tgcaaccgaa acaggccttg ggagatatca acggcaaaga ctgcaagtcg tggcgtctgc 420
102 agctgcggca gcggctttcg accctcctgg aggtgcgtgg cgtgagggtc gcacgggtgc 480
103 gggttggcct ggaaccaaag cctcgccacg actacctgca acagcattgc ccgcatctcc 540
104 agccctcac cctcgagtgc ctccgaaga cctctatccc ctgcgcatca ttggttcggg 600
105 ggcgcgcgt gcgggccttg ggcgtggct acggtgaccg cacggcacga cttggcacgg 660
106 cctggcgccg cctgagcggc cccccccctc ctgatggccc cacgctttgc cgccacgcc 720
107 gctccccgca ggtgtctccg ccgggttctc gcagccgcaa cagcagctgc cacaacagca 780
108 cccacgcaa ccacaggcgg tggcgagggt agctgtcgcc gagtcagtct cggcgccgc 840
109 ttctgcggcg ccctccaatg atggctcgcc cacggcctcc atggacggcg gccccagctc 900

```

## RAW SEQUENCE LISTING

DATE: 07/12/2006

PATENT APPLICATION: US/10/762,769A

TIME: 09:52:58

Input Set : F:\SEQLIST.TXT

Output Set: N:\CRF4\07122006\J762769A.raw

```

110 cggcctcagc gccgtgcccc cgcccgccac cgccaccgac ctcttctccg ccgcggcgcg 960
111 cctccgcctg cccaacctct ccccatcat cacctggacc ttcattgctct cctacatggc 1020
112 ctcatgctc atcatgcccc tcaccgcgct gctgcaaaaa gcctcgctcg tgccgctcaa 1080
113 cgtcttcacg gcgcgcgcca ccgagccggt ggcatgcac gcctactacg tcaccttctc 1140
114 ctgctcgctg atcgcgcccg ccatcaactg cgtgtttggc ttcgtgctgg cctgggtgct 1200
115 ggtgcgctac aatttcgcgg ggaagaagat cctggacgcg gcggtggacc tgccgttcgc 1260
116 gctgccgacc tcggtggcgg gcctcacgct tgccacgggtg tacggcgacg agttcttcat 1320
117 cggccagttc ctgcaggcgc agggcggtgca ggtgcgtgcg tatagcatag tggagtgtgg 1380
118 ttagcagctg ggggtccggc agtagttccc gccctagtga ggtcgaaact ataccagaag 1440
119 aagaggacga acatggggct atccagcaag ctctctagg gaaggaggag tttgggagaa 1500
120 cgggtgggtg ggagggagag ggagggcggt ggctgggagg gaagggtaaag gcgggagga 1560
121 gatggtagca cggggcggtt gggacgcaga aggatgacag gcggtgcag ggaagggatg 1620
122 gggaagcgga gctggggaca gtgcaagag ccgggagaga ggggaagttt gagtccaggaa 1680
123 gaggggctag agaggggcat gcggactcct gctgggattt aggtgcgtgc tcattgagga 1740
124 gcccttggaa tcagcggacg gaaacgtggc cgacggggtc tgccgagcac accaggctag 1800
125 ctagacgcgc ggttgggcaa cgagcagagc tgctgtgcgg ctatggatgg aaggcgatgc 1860
126 agcgagcatg tgcagtgaac attggtttga ggacagggga ctccgaggtt gcataggcgg 1920
127 gccgccactg tctctgccgc tagggtgact agctgcctcg aacctggcgg tggcccata 1980
128 cccgcagttg gaggatgctc cacgcgcttc agcttgccat gtctggggtc tgggtctgga 2040
129 cgcaatcagc gtgtgagggc ccaactctat atggaattat ggataccttc caactaccag 2100
130 cacgtaggct gccggaacgc ggctgaagcg gctggcctgc cccctcatcc tctcgttccc 2160
131 ctgtttttgt ccctgtcca ccaggtggt gttcacgcgg ctgggtgtgg tgatcgccat 2220
132 gatcttcgtg tccttcccct tcgtggtgcg cccatgcag cccgtcatgc aggtgagagc 2280
133 gccaggagg cgagccatg gcgggttggg gcgggttggg gcgggttggg gcggggcgcg 2340
134 gatggggcgg cttggggagt aatgtggggc ggatggggtg gcagcctggc agggatatgg 2400
135 agcgagagga tagcggggac aggggacagg gaagggaagg gaagggaag gatgccctat 2460
136 gcgagcaaag ggggtatggg aaccggcggt tggggctggg agcgacggga gcagggagg 2520
137 agtgacggga acgggggcaa ggcgacagg gtgagggagg gtgcaggccg gactgggatg 2580
138 ggtcatgtgt cctggtcggt ggtgtagcgg tgggagcgcg gcaggcagcg tgtgtctggt 2640
139 caggtgtttt tggcgaaaga taccacggca tggatatggg ccagttgggc agggaagaac 2700
140 cgttgacac gacttcgttg acagatctag ttcatgtcac ccgggtcgca ccaaggttgg 2760
141 cggcgagccc ggcccgccac gtccgagtac cccggagccg taacgccgca acccgcttg 2820
142 ttgcgcccc tccctgctcc cctgctccgc ataccgtgca ccatgccctc tgccgcccc 2880
143 tcaggccctc aggcctcac ctccccctca cctcctcta acgccttccc ctgccttcc 2940
144 ctccccctcc caacgccacc acgtgcaaca ggaaatcaa aaggagatgg aggagcgcg 3000
145 atggtcgctg ggcgcctcg agtggcgcac cttcacagac gtggtgctgc cgccgctgct 3060
146 gcccgcgctg ctgaccggca cggcactggc cttctcgcg gcgcttggcg agttcggatc 3120
147 cattgtcatc gtgtcctcca actttgcctt caaggacctg atcgcgcccg tgctgatctt 3180
148 ccagtgcctg gagcagtacg actacgtggg cgccaccgtg atcggcacag tactgctgtt 3240
149 gatttcgctg gtgatgatgt tggcggtgaa ccagctgcag aagctggcgc gcaagtgagg 3300
150 ggctgaggcg tttgaggaga gtgggcgtct gcggaggcgc ttgtggcgca ggggcaggtg 3360
151 gaggaggtt gagggtgagg caggagtggc aggtggtgga ggggtcaggg cggggtgtt 3420
152 ggatgggatg ggatgggacc gtgggagggg tgggactttg ggtgggtggg agtgggtgct 3480
153 acgtattagg atatgggagg tggatgcag ttgaagggg ggggtggcaat ctggacggg 3540
154 actcactggt tactaggcac gcatgtcgca ggaatggata tcgatgggtg tggggtgtc 3600
155 agcacgctt gcttagttg ggccatggga cccgggacta ggcttgggtg cgagccgagc 3660
156 cagtcaccag ggagagctac gagcgcacac agtgattacg gggattgatt aggcggcgaa 3720
157 ttgacgcaa tccacgggg ctgtggcttg ggggaggcag ggattgagcg aaggacgcac 3780
158 tgcaagctca ggcagtcgca tgcccgtacc ctgcttctgg tccagtgtgg agacaagact 3840

```

## RAW SEQUENCE LISTING

DATE: 07/12/2006

PATENT APPLICATION: US/10/762,769A

TIME: 09:52:58

Input Set : F:\SEQLIST.TXT

Output Set: N:\CRF4\07122006\J762769A.raw

```

159 ggcaatcgtg gtcctttgca attcatggcg cgc 3873
161 <210> SEQ ID NO: 3
162 <211> LENGTH: 1984
163 <212> TYPE: DNA
164 <213> ORGANISM: Chlamydomonas reinhardtii
166 <400> SEQUENCE: 3
167 gcttagtacc taagcaaaaa taccaaagcc ttatcctgag ttgtcaacaa gaactccagc 60
168 ctgcgacgat gcaaagcctt tcttgagcgg gttgatggac tttgctttgt tatctgtcca 120
169 gtaagccacc agacactacc aagtagagta atccatttgt ataggtacag aatatggagc 180
170 gagtttgacg ccatacagctt gcctcgtcgc gagggaggcc atgcatcgct ggggtgcagc 240
171 ggtcgcccat ccgactaggg acttcaagcg ttgctcatgt gcaggctctc ccggcaggcc 300
172 ttgggagata tcaacggcaa agactgcaag tcgtggcgct tgcagctgcg gcagcggctt 360
173 tcgaccctcc tggagggtgtc tccgcccggg tctcgagcc gcaacagcag ctgccacaac 420
174 agcaccacag ccaaccacag gcggtggcgg aggtagctgt cgcgcagtcg gtctcggcgc 480
175 ccgcttctgc ggcgccctcc aatgatggct cgcacacggc ctccatggac ggcggcccca 540
176 gctccggcct cagcgccgtg cccgcccggc ccaccgccac cgacctctc tccgcccggg 600
177 cgcgccctcg cctgcccac ctctcccca tcatcacctg gaccttcag ctctcctaca 660
178 tggccttcat gctcatcatg cccatcacgc cgctgctgca aaaagcctcg ctctgcccgc 720
179 tcaacgtctt catcgcgcg gccaccgagc cggtggcgat gcacgcctac tacgtcacct 780
180 tctcctgctc gctgatcgcg gccgccatca actgcgtgtt tggcttcgtg ctggcctggg 840
181 tgctggtgcg ctacaatttc gcggggaaga agatcctgga cgcggcggtg gacctgccgt 900
182 tcgcgctgcc gacctcgggt gcgggcctca cgcttgccac ggtgtacggc gacgagttct 960
183 tcatcgccca gttcctgcag gcgcagggcg tgcagggtgt gttcacgcgg ctgggtgtgg 1020
184 tgatcgccat gatcttcgtg tccttccctc tcgtgggtgc caccatgcag cccgtcatgc 1080
185 aggaaatcca aaaggagatg gaggagggcg catggtcgct gggcgccctc cagtggcgca 1140
186 ccttcacaga cgtggtgctg ccgcccgtgc tgcccgcgct gctgaccggc acggcactgg 1200
187 ccttctcgcg cgcgcttgcc gagttcggat ccattgtcat cgtgtcctcc aactttgcct 1260
188 tcaaggacct gatcgcgccc gtgctgatct tccagtgcct ggagcagtac gactacgtgg 1320
189 gcgcaccgtg gatcggcaca gtactgctgt tgatttcgct ggtgatgatg ttggcggtga 1380
190 accagctgca gaagctggcg cgcaagttag gggctgaggc gtttgaggag agtgggcgtc 1440
191 tgcggaggcg cttgtggcgc aggggcaggt ggaggaggtt gcagggtgag gcaggagtgg 1500
192 caggtggtgg aggggtgcagg gcgggggtgt gggatgggat gggatgggac cgtgggaggg 1560
193 gtgggacttt ggggtgggtg gagtgggtgc tacgtattag gatatgggag gtggtatgca 1620
194 gttgaagggg ggggtggcaa tctggacggg gactcactgt ttactaggca cgcagtgcgc 1680
195 aggagtggat atcgatgggt gtggggatgt cagcacgctt ggcttgagtt gggccatggg 1740
196 acccgggact aggccttggt gcgagccgag ccagtcacca gggagacgta cgagcgaca 1800
197 cagtgattac ggggattgat taggcggcga attgacgcaa atccacggg gctgtggctt 1860
198 gggggaggca gggattgagc gaaggacgca ctgcaagctc aggcagtcgc atgcccgtac 1920
199 cctgcttctg gtccagtgtg gagacaagac tggcaatcgt ggtcctttgc aattcatggc 1980
200 gcgc 1984
202 <210> SEQ ID NO: 4
203 <211> LENGTH: 1863
204 <212> TYPE: DNA
205 <213> ORGANISM: Chlamydomonas reinhardtii
207 <400> SEQUENCE: 4
208 cattcaattt gcagcgttcc taaaatggca agcacaacgc tgctccagcc cgcgcttggt 60
209 ctgccctcgc gggtagggcc tcgctccctc ctgtcgcttc caaaaattcc tcgctgtgct 120
210 acgcacacta gtgctccctc tacctcaaag tactgcgact catcatcagt tatagagagc 180
211 acgctagggc ggcaaacatc ggttgccggg agaccatggc ttgcaccccg gcctgcgcct 240

```

## RAW SEQUENCE LISTING

DATE: 07/12/2006

PATENT APPLICATION: US/10/762,769A

TIME: 09:52:58

Input Set : F:\SEQLIST.TXT

Output Set: N:\CRF4\07122006\J762769A.raw

```

212 caacaaagcc gaggcgacct actggtctcc aaatcggggg cagcaggagg catgggcgcc 300
213 catggagggg gcttagggga accggtcgat aattggatca agaagctact cgttggtgtc 360
214 gcggcggcgt acatcggtct ggctcgtgctg gtgcccttcc tgaatgtctt cgtccaggcg 420
215 ttcgccaagg gcatcattcc ctctctggag cactgcgcgg acccggtactt tctgcacgca 480
216 ctcaagatga cgctgatgct ggcgttcgtg acgggtgccgc tcaacacggg gtttggcacg 540
217 gtggcccgca tcaacctcac gcgcaacgag ttccccggca aggtgttcct gatgtcgctg 600
218 ctggacctgc ctttctccat ctgcgccgtg gtgactggcc tgatgtcac gctgctgtac 660
219 ggccgcaccg gctggttcgc ggcgctgctg cgggagaccg gcatcaacgt ggtgttcgca 720
220 ttcacgggca tggccctggc caccatgttt gtgacgtgc cgttcgtggt gcgcgagctg 780
221 atccccatcc tggagaacat ggacctgtcg caggaggagg cggcgagaac gctggggggc 840
222 aacgactggc aggtgttctg gaacgtgacg ctgccaaca tccgctgggg cctgctgtac 900
223 ggcgtgatcc tgtgcaacgc ccgagccatg ggcgagttcg gagccgtgtc cgtcatctcg 960
224 ggcaacatca tcggccgcac gcagacgctg acgctgttcg tcgagtcgcg ctacaaggag 1020
225 tacaacacgg aggcggcggt cgcgccggct gtgctgctga gcgcgctggc gctgggcacc 1080
226 ctgtggatca aggacaagggt ggaggaggcg gcggcgcgcg agagccgcaa gtagagagga 1140
227 gcaggcgcgc tcggcagcgg cggcagtggc agcggcagcg gcggagagcg gcagctggag 1200
228 aggagcaggc ggtggcggcg gagcgcgcgga aatagagagg tgcagcaagg aggcaggcgc 1260
229 cgacgcgagg ggaggcgctg gtggtgggct tgcgtgggtg cttggtccgt ggccagggtg 1320
230 cctggcctgg gtagttggtg tgtgggtgaa gctgattcct gtttgggtga ggcggccgag 1380
231 ttctgaagg aagcaaggaa ggacagtgcc gcagtacca gcgggtaatg gtaagggagc 1440
232 tgacacgtgt ggcgttctgt tgctggtcgc cgcagtctta acgcagcggg agcagcttct 1500
233 ctgtctgatg tctaaccggg gcgttgtatg ctgataatag acggaggggc aagggagcag 1560
234 gcgcggttca gatggggtaa aagctgttgg aaatcaacac gtgcagcggg tgggttgcat 1620
235 ttgtgatcac tggacgttct gagtgtccg tgcgcctata gcgcgtgctg tgcataata 1680
236 cgcgcgccgg cgcataaaac atgactgcat gtgtcggtgt tgacggtaca gttatgccgt 1740
237 gccccgtttt acaagcggga tagaggcaca ctccacgtag tatgcattga gccagtaga 1800
238 ctctggtcag aaggccggtg aatttacatg tgtcgtggtg aaccctgtaa gtcattggcc 1860
239 aag

```

```

241 <210> SEQ ID NO: 5
242 <211> LENGTH: 2253
243 <212> TYPE: DNA
244 <213> ORGANISM: Chlamydomonas reinhardtii
246 <400> SEQUENCE: 5

```

```

247 gtacttcaat tgtcagaatg gcgtcgctgc tcgctcaaac aacatcgcg cttggcgctc 60
248 gccagctgc gcaagctggc cctgtcgccc aaatggcacc gatggcaagc cgagtgcagc 120
249 cggcgatgcc tagcgcgctg ctcccactgc acgccagagc gacaacaact tcagtgcctt 180
250 gccgggcagc cagcatcgac aaacctgtcg tttacactcc tcgagattcg tcgcaacagt 240
251 cctccaatgg ggcaggagaa gtgtccatgt ccatatcatc catggacgag gttggaccct 300
252 cttatgaggg aatcattaca gacgcgccta cacgaccaac ggggctttat gtgcgggtgc 360
253 gcaacatggt gaagcacttc agcaccgcca aaggcctggt cagggcggtg gacggcggtg 420
254 acgtggacat cgagcccagc tccatcgctg cgctgctggg gccagcggc agcggcaaga 480
255 ccacattgct gcgcctcatt gcaggcctgg agcagcccac gggcggaac atctactttg 540
256 acgacacgga cgcgaccaac ctgtccgtcc aggaccgcca gatcggcttc gtgttcaga 600
257 gctatgcgct gttcaaccac aagacagttg cggagaacat caagtgtgga ctggaggtgc 660
258 gcaagctcaa catcgaccac gacaagcgcg tggcgagct gctggcgctg gtgcagctca 720
259 ccggcctggg cgaccgtac ccgcgccaac tgtcgggcgg ccagcggcag cgtgtggcg 780
260 tggcgcgcg cctggcctcc aaccgcggc tgctgctgct ggacgagccc tttggcgcg 840
261 tggacgcggt ggtgcgcaag cagctgcgca cggggctgcg cgagatcgtg gcgagcgtg 900
262 gcgtgaccac catcattgtg acgcacgacc aggaggaggc gttcgacctg gcggacaagg 960

```

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 07/12/2006  
PATENT APPLICATION: US/10/762,769A      TIME: 09:52:59

Input Set : F:\SEQLIST.TXT  
Output Set: N:\CRF4\07122006\J762769A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:8; Xaa Pos. 438

VERIFICATION SUMMARY

DATE: 07/12/2006

PATENT APPLICATION: US/10/762,769A

TIME: 09:52:59

Input Set : F:\SEQLIST.TXT

Output Set: N:\CRF4\07122006\J762769A.raw

L:445 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:432